

In the Claims

1. (currently amended) A digital sensor for monitoring wear of a lining material of disc brakes, which sensor is adapted to be attached at an end of an adjustment shaft of an adjusting mechanism for adjusting the position of brake pads in relation to a brake disc, which sensor comprises: ~~at least two code parts, of which one is rotated continuously by rotation of the adjustment shaft, characterized in that the code part rotating continuously is a code wheel~~

a first code part, said first code part being rotated continuously by rotation of the adjustment shaft and comprising a code wheel, and

a second code part, said second code part comprising at least one of a sliding part in the form of a code rack which is moved in a linear fashion, a sliding part in the form of a sleeve which is moved in a linear fashion, and a code wheel.

2. (currently amended) The sensor of claim 1, characterized in that the second code part ~~parts not rotated continuously by the rotation of the adjustment shaft are~~ is moved intermittently by the rotation of the adjustment shaft.

3. (currently amended) The sensor of claim 2, characterized in that the sensor ~~it~~ further comprises detectors directed towards the code parts, a connection part of the first code part ~~one of the code wheels~~ drivingly connected to the adjustment shaft of the disc brake and a printed circuit board (PCB) and that the code parts have code paths turned towards the detectors of the printed circuit board (PCB).

4. (currently amended) The sensor of claim 3, characterized in that a ~~the~~ code on the ~~at least two code parts~~ is ~~are~~ formed by at least one of magnets, by light and dark sectors, and ~~or by presence or absence of holes or no holes.~~

5. (currently amended) The sensor of claim 4, characterized in that the detectors are received on the printed circuit board (PCB); that the printed circuit board (PCB) has circuitry to relate the signals from the detectors to the actual wear of the lining material of the brake; that the two or more code parts are arranged on a first ~~the same~~ side of the printed circuit board (PCB) or on opposite sides of the printed circuit board (PCB); ~~and/or~~ and that a Graycode is used.

6. (currently amended) The sensor of claim 5, characterized in that the detectors comprise at least one of ~~are~~ optical detectors, magnetic sensors and ~~or~~ mechanical switches.

7. (currently amended) The sensor of claim 6, characterized in that the detectors are at least one of magnetoresistive sensors and ~~or~~ hall effect sensors.

8. (currently amended) The sensor of claim 48 1, characterized in that the ~~code wheel rotated continuously by the adjustment shaft~~ first code part or a part drivingly connected to the ~~code wheel~~ first code part, has a finger for co-operation with teeth of the ~~sliding part~~ second code part and that the finger is arranged to advance the ~~sliding part~~ second code part a distance corresponding to one tooth for each turn of the ~~code wheel~~ first code part.

9. (currently amended) The sensor of claim 7, characterized in that seven detectors are arranged on the printed circuit board (PCB) for reading ~~of~~ up to four different paths on ~~each of the other code parts~~ the second code part.

10. (currently amended) The sensor of claim 8, characterized in that a part drivingly connected to the adjustment shaft or an extension of the adjustment shaft is received in a slot of the second code part ~~sliding part and/or that a clamp is biased by means of a spring against teeth of the sliding part~~.

11. (currently amended) The sensor of claim 7, characterized in that the sensor further comprises ~~three code parts~~ a third code part.

12. (previously presented) The sensor of claim 11, characterized in that the three code parts are two code wheels and one code rack.

13. (previously presented) The sensor of claim 11, characterized in that the three code parts are one code wheel and two code racks.

14. (previously presented) The sensor of claim 7, characterized in that the sensor comprises two code wheels.

15 - 20. (cancelled)

21. (new) The sensor of claim 8, characterized in that a clamp is biased by means of a spring against teeth of the second code part.